ATTACHMENT E

CONSTRUCTION OF A FISHWAY AT WINCHELL-SMITH DAM (Farmington River, Farmington)

Background: The Rainbow Dam Fishway in Windsor passes American shad, alewife, blueback herring, sea lamprey, sea-run trout, and American eel upstream as part of a top priority diadromous fish restoration program. Theoretically, these fish are able to reach the lower Collinsville Dam (total of 25 river miles) but re-examination of the Winchell-Smith Dam indicates that it likely prevents upstream passage to at least American shad, alewife, and blueback herring at many flow levels. This blocks fish passage for nearly 12 miles of mainstem habitat as well as the entire Pequabuck River watershed. Engineering solutions are needed to get all fish around this dam at all flow levels.

Project: Funding is needed to hire an engineering firm to review alternatives and design the alternative that meets with the approval of the dam owner, DEP Inland Fisheries and other parties. Dam removal should be considered but due to the historical nature of the dam and the aesthetic values it provides the owner (a restaurant), it is anticipated that the owner will not approve of this alternative. A likely solution is a left-bank semi-natural bypass channel. The necessary land is flat, easily accessible open space likely owned by the Town. Supplemental federal grants are likely if non-federal match can be provided.

For additional technical information please contact Stephen Gephard, Diadromous Fish Program, 860-447-4316.

CONSTRUCTION OF A FISHWAY AT KING STREET (Pequabuck River, Bristol)

Background: The Rainbow Dam Fishway in Windsor passes American shad, alewife, blueback herring, sea lamprey, sea-run trout, and American eel upstream as part of a top priority diadromous fish restoration program. Theoretically, these fish are able to reach the Pequabuck River, although there may be some problems at the Winchell-Smith Dam in Farmington (which is also being proposed as a project). Once fish reach the Pequabuck, most of the watershed is open to migration, except for the presence of this one dam at King St. If fish were able to get around this dam, an additional approximately 5 miles of habitat would open up.

Project: Funding is needed to hire an engineering firm to review alternatives and design the alternative that meets with the approval of the dam owner, Inland Fisheries and other parties. Dam removal should be considered but there is some concern about contaminants in the sediment and the stability of the highway retaining wall. If these issues cannot be addressed in a removal alternative, a small Denil fishway should be proposed. Adjacent land alongside the dam is easily accessible and owned by the DOT and maybe theTown. Supplemental federal grants are likely if non-federal match can be provided.

CONSTRUCTION OF A FISH PASSAGE PROJECT AT SPOONVILLE DAM (Farmington River, Bloomfield/East Granby)

Background: The Rainbow Dam Fishway in Windsor passes American shad, alewife, blueback herring, sea lamprey, sea-run trout, and American eel upstream as part of a top priority diadromous fish restoration program. Theoretically, these fish are able to reach the lower Collinsville Dam (total of 25 rivermiles) but re-examination of the Collinsville Dam indicates that it likely prevents upstream passage to at least American shad, alewife, and blueback herring at many flow levels due to velocity barriers in the notch of the old dam. The dam is breached but the entire river flows through a narrow gap and during high spring flows, the velocities are such that some species may not have the strength/stamina to penetrate the plume. This blocks them for nearly 20 miles of mainstem habitat as well as the entire Pequabuck River and Salmon Brook watersheds. Furthermore, this notch creates dangerous hydraulic currents around a big chunk of concrete downstream of the dam (that used to be part of the dam). Many swimmers and others have drowned at this location and the dangerous conditions persist. Engineering solutions are needed to get all fish around this dam at all flow levels and eliminate this dangerous situation. It is envisioned that this will improve the whitewater paddling experience at this popular site.

Project: Funding is needed to hire an engineering firm to review alternatives and design the alternative that meets with the approval of the dam owner, Inland Fisheries and other parties. Complete dam removal should be considered but removal of just a portion of the remnant dam may meet the objectives. The land and dam is owned by Northeast Utilities, which has no plans for it and may be in a position to contribute additional funding. Supplemental federal grants are likely if non-federal match can be provided.

For additional technical information please contact Stephen Gephard, Diadromous Fish Program, 860-447-4316.

STREAMBANK STABILIZATION ALONG BURLINGTON BROOK, BURLINGTON

Background: Burlington Brook, a major tributary of the Farmington River, is a steep gradient, coldwater stream that supports a variety of stream fish. The Inland Fisheries Division stocks hatchery-reared brook trout and brown trout for recreational fishing and Atlantic salmon young-of–the year in conjunction with restoration efforts for that species in the Farmington River drainage basin. During mid-December 2005, Matt Reale of Burlington the owner of property through which Burlington Brook flows contacted Inland Fisheries Division staff. Mr. Reale indicated that flood events of October 2005 caused significant erosion of the streambanks along the $1{,}200^{\pm}$ reach of Burlington Brook that flows through and immediately downstream of his property. This reach of stream was relocated in the mid-1960's for the reconstruction of Route 4. Mr. Reale indicated that the Burlington Brook channel had widened from pre-disturbance width of 8 to 10 feet to its current width of 25 to 30 feet. The instream habitat once comprised of deep plunge pools has been eliminated by down cutting (to a depth of up to 4 feet as evidenced by exposed tree roots and streambed composition) and has been replaced by shallow riffle. Inland Fisheries Division staff familiar with this reach of Burlington Brook from prior annual trout stocking concur with Mr. Reale's observations. Based upon information of pre-disturbance conditions and viewing existing conditions, it is estimated that approximately 11,000+ cubic yards of material have eroded from this site along Burlington Brook downstream into the Farmington River. Additional material is likely to have eroded more recently during flood events of April 2007.

Project: Funding is needed to hire an engineering firm to develop alternatives to stabilize the eroding streambanks and to restore instream habitat in Burlington Brook and to design the alternative that meets with the approval of Mr. Reale, the Connecticut Department of Transportation, and the Inland Fisheries Division. It should be noted that Mr. Reale had approached the Connecticut Department of Transportation and department of Environmental Protection in late-2005 with a request for assistance in such a project. Following concurrence with a design, funding is needed for project construction. Supplemental federal grants may be available if non-federal match can be provided.

For additional technical information please contact Don Mysling, CTDEP Inland Fisheries Division-Habitat Conservation and Enhancement Program, 860-567-8998.